Mr. James Gates
Premier Refractories, Inc.
816 East Porter St
Crown Point, IN 46307

Re: **089-11412**
First Administrative Amendment to
Part 70 T089-6882-00075

Dear Mr. Gates:

Premier Refractories, Inc. was issued a Part 70 Operating Permit (T089-6882-00075) on February 12, 1999 for a refractory manufacturing plant. A letter from Premier Refractories, Inc., requesting changes to this permit was received by IDEM on August 18, 1999. Pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(1) One (1) natural gas-fired rotary drum dryer, identified as EU-001, with a maximum throughput of 6.0 tons of dried solids per hour, utilizing a baghouse (001) for particulate control, and exhausting through one (1) stack (S/V ID: 001);

(2) one (1) bagging line, identified as EU-004, with a maximum throughput of ~~12.0~~ **6.0** tons of solids **or extruded refractory shapes** per hour, consisting of four (4) batching hoppers ~~and~~ one (1) mixer/dryer, **one (1) hydraulic extruder and conveyor**, all utilizing a baghouse (004) for particulate control, and exhausting through one (1) stack (S/V ID: 004);

(3) one (1) anhydrous tap hole process, identified as EU-005, with a maximum throughput of 6.0 tons of extruded refractory shapes per hour, consisting of a scale, skip, two (2) mixers, and an extruder, all utilizing a baghouse (005) for particulate control, and exhausting through one (1) stack (S/V ID: 005);

(4) one (1) ground material line, identified as EU-006, with a maximum throughput of 12.0 tons per hour of solid raw material **or ground and screened material**, consisting of a dump station, two (2) bucket elevators, four (4) storage silos which can be filled at a maximum rate of 15.0 tons per hour, a crusher, ~~and~~ a dispensing hopper **and one (1) augur**, all utilizing a baghouse (006) for particulate control, and exhausting through one (1) stack (S/V ID: 006).

(5) one (1) large bagging line, identified as EU-008, with a maximum throughput of 12.0 tons of dry solids per hour, consisting of three (3) batching hoppers and one (1) mixer/bagger, all utilizing a baghouse (008) for particulate control, and exhausting inside the building; and

(6) one (1) Eirich high intensity mixer, identified as EU-009, with a maximum throughput of 6.0 tons of dry material per hour, utilizing a baghouse (009) for particulate control, and exhausting inside the building.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Safety-Kleen cold cleaner degreaser).

(2) Other categories with emissions below insignificant thresholds:

(a) Two (2) 10,000 gallon tar storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC; and

(b) one (1) resin taphole process, identified as EU-002, emitting less than 25 lb/day of PM,15 lb/day of VOC, and less than 1 ton of a single HAP per year, utilizing a baghouse (002) with a design grain loading of less 0.03 grains/acf and an air flow rate of ~~2,224~~ **22,000** acfm, and exhausted through one (1) stack (S/V ID: 002);

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] - Refractory Manufacturing Operations including the following:

(1) One (1) natural gas-fired rotary drum dryer, identified as EU-001, with a maximum throughput of 6.0 tons of dried solids per hour, utilizing a baghouse (001) for particulate control, and exhausting through one (1) stack (S/V ID: 001);

(2) one (1) bagging line, identified as EU-004, with a maximum throughput of ~~12.0~~ **6.0** tons of solids **or extruded refractory shapes** per hour, consisting of four (4) batching hoppers ~~and~~ one (1) mixer/dryer, **one (1) hydraulic extruder and conveyor**, all utilizing a baghouse (004) for particulate control, and exhausting through one (1) stack (S/V ID: 004);

(3) one (1) anhydrous tap hole process, identified as EU-005, with a maximum throughput of 6.0 tons of extruded refractory shapes per hour, consisting of a scale, skip, two (2) mixers, and an extruder, all utilizing a baghouse (005) for particulate control, and exhausting through one (1) stack (S/V ID: 005);

(4) one (1) ground material line, identified as EU-006, with a maximum throughput of 12.0 tons per hour of solid raw material **or ground and screened material**, consisting of a dump station, two (2) bucket elevators, four (4) storage silos which can be filled at a maximum rate of 15.0 tons per hour, a crusher, ~~and~~ a dispensing hopper **and one (1) augur**, all utilizing a baghouse (006) for particulate control, and exhausting through one (1) stack (S/V ID: 006).

(5) one (1) large bagging line, identified as EU-008, with a maximum throughput of 12.0 tons of dry solids per hour, consisting of three (3) batching hoppers and one (1) mixer/bagger, all utilizing a baghouse (008) for particulate control, and exhausting inside the building; and

(6) one (1) Eirich high intensity mixer, identified as EU-009, with a maximum throughput of 6.0 tons of dry material per hour, utilizing a baghouse (009) for particulate control, and exhausting inside the building.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-1-2(a)]

(PM) Pursuant to 326 IAC 6-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter emissions from the rotary dryer (001), bagger line (004), anhydrous taphole process (005) ground material line (006), large bagging line (008), and Eirich high intensity mixer (009) shall each be limited to 0.03 grain per dry standard cubic foot. ~~This is equivalent to the following pounds per hour emission rates:~~

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] - The following specifically regulated insignificant activities:

(1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Safety-Kleen cold cleaner degreaser).

(2) Other categories with emissions below insignificant thresholds:

(a) one (1) resin taphole process, identified as EU-002, emitting less than 25 lb/day of PM,15 lb/day of VOC, and less than 1 ton of a single HAP per year, utilizing a baghouse (002) with a design grain loading of less 0.03 grains/acf and an air flow rate of ~~2,224~~**22,000** acfm, and exhausted through one (1) stack (S/V ID: 002);

The table of contents, description of equipment and reporting forms will also be updated to include the above referenced information. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

Operation of the new equipment incorporated into the Part 70 operating permit by this amendment may commence operation upon issuance of this approval. This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please contact Phillip Ritz, at 973-575-2555 (ext. 3241) or 1-800-451-6027 press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
PR/EVP
cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Air Compliance Section Inspector - Rick Massoels/Ramesh Tejuja
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR MANAGEMENT

Premier Refractories, Inc.
816 East Porter Street
Crown Point, Indiana 46307

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T089-6882-00075	
Issued by: Felicia R. George, Assistant Commissioner Office of Air Management	Issuance Date: February 12, 1999

First Administrative Amendment No.: 089-11412-00075	Pages Affected: 4, 5, 27 and 31
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary refractories manufacturing plant.

Responsible Official:	Mr. Ronald Fricke
Source Address:	816 East Porter St, Crown Point, IN 46307
Mailing Address:	816 East Porter St, Crown Point, IN 46307
SIC Code:	3255
County Location:	Lake
County Status:	Nonattainment area for Ozone Attainment area for all other criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(1) One (1) natural gas-fired rotary drum dryer, identified as EU-001, with a maximum throughput of 6.0 tons of dried solids per hour, utilizing a baghouse (001) for particulate control, and exhausting through one (1) stack (S/V ID: 001);

(2) one (1) bagging line, identified as EU-004, with a maximum throughput of 6.0 tons of solids or extruded refractory shapes per hour, consisting of four (4) batching hoppers, one (1) mixer/dryer, one (1) hydraulic extruder and conveyor, all utilizing a baghouse (004) for particulate control, and exhausting through one (1) stack (S/V ID: 004);

(3) one (1) anhydrous tap hole process, identified as EU-005, with a maximum throughput of 6.0 tons of extruded refractory shapes per hour, consisting of a scale, skip, two (2) mixers, and an extruder, all utilizing a baghouse (005) for particulate control, and exhausting through one (1) stack (S/V ID: 005);

(4) one (1) ground material line, identified as EU-006, with a maximum throughput of 12.0 tons per hour of solid raw material or ground and screened material, consisting of a dump station, two (2) bucket elevators, four (4) storage silos which can be filled at a maximum rate of 15.0 tons per hour, a crusher, a dispensing hopper and one (1) augur, identified as EU-006, all utilizing a baghouse (006) for particulate control, and exhausting through one (1) stack (S/V ID: 006).

(5) one (1) large bagging line, identified as EU-008, with a maximum throughput of 12.0 tons of dry solids per hour, consisting of three (3) batching hoppers and one (1) mixer/bagger, all utilizing a baghouse (008) for particulate control, and exhausting inside the building; and

(6) one (1) Eirich high intensity mixer, identified as EU-009, with a maximum throughput of 6.0 tons of dry material per hour, utilizing a baghouse (009) for particulate control, and exhausting inside the building.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Safety-Kleen cold cleaner degreaser).

(2) Other categories with emissions below insignificant thresholds:

(a) Two (2) 10,000 gallon tar storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC; and

(b) one (1) resin taphole process, identified as EU-002, emitting less than 25 lb/day of PM,15 lb/day of VOC, and less than 1 ton of a single HAP per year, utilizing a baghouse (002) with a design grain loading of less 0.03 grains/acf and an air flow rate of 22,000 acfm, and exhausted through one (1) stack (S/V ID: 002);

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] - Refractory Manufacturing Operations including the following:

(1) One (1) natural gas-fired rotary drum dryer, identified as EU-001, with a maximum throughput of 6.0 tons of dried solids per hour, utilizing a baghouse (001) for particulate control, and exhausting through one (1) stack (S/V ID: 001);

(2) one (1) bagging line, identified as EU-004, with a maximum throughput of 6.0 tons of solids or extruded refractory shapes per hour, consisting of four (4) batching hoppers, one (1) mixer/dryer one (1) mixer, one (1) hydraulic extruder, and conveyor, all utilizing a baghouse (004) for particulate control, and exhausting through one (1) stack (S/V ID: 004);

(3) one (1) anhydrous tap hole process, identified as EU-005, with a maximum throughput of 6.0 tons of extruded refractory shapes per hour, consisting of a scale, skip, two (2) mixers, and an extruder, all utilizing a baghouse (005) for particulate control, and exhausting through one (1) stack (S/V ID: 005);

(4) one (1) ground material line, identified as EU-006, with a maximum throughput of 12.0 tons per hour of solid raw material or ground and screened material, consisting of a dump station, two (2) bucket elevators, four (4) storage silos which can be filled at a maximum rate of 15.0 tons per hour, a crusher, a dispensing hopper, and one (1) augur, identified as EU-006, all utilizing a baghouse (006) for particulate control, and exhausting through one (1) stack (S/V ID: 006).

(5) one (1) large bagging line, identified as EU-008, with a maximum throughput of 12.0 tons of dry solids per hour, consisting of three (3) batching hoppers and one (1) mixer/bagger, all utilizing a baghouse (008) for particulate control, and exhausting inside the building; and

(6) one (1) Eirich high intensity mixer, identified as EU-009, with a maximum throughput of 6.0 tons of dry material per hour, utilizing a baghouse (009) for particulate control, and exhausting inside the building.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-1-2(a)]

(PM) Pursuant to 326 IAC 6-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter emissions from the rotary dryer (001), bagger line (004), anhydrous taphole process (005) ground material line (006), large bagging line (008), and Eirich high intensity mixer (009) shall each be limited to 0.03 grain per dry standard cubic foot.

D.1.2 Particulate Matter (PM) [326 IAC 6-1-11.1]

The facilities identified as the bagger line (004), the ground material line (006), and the large bagging line (008) are subject to the following:

(a) The PM10 stack emissions shall not exceed 0.022 grains per dry standard cubic foot (dscf) and 10% opacity.

(b) There shall be a zero percent frequency of visible emission observations from a building enclosing all or a part of the material processing equipment, except from a vent in the building;

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] - The following specifically regulated insignificant activities:

(1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Safety-Kleen cold cleaner degreaser).

(2) Other categories with emissions below insignificant thresholds:

(a) one (1) resin taphole process, identified as EU-002, emitting less than 25 lb/day of PM,15 lb/day of VOC, and less than 1 ton of a single HAP per year, utilizing a baghouse (002) with a design grain loading of less 0.03 grains/acf and an air flow rate of 22,000 acfm, and exhausted through one (1) stack (S/V ID: 002);

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5

The Safety-Kleen cold cleaner degreaser shall comply with the following operating and control requirements:

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)),

or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120^{O}F)):